

Guidelines For Graduate Students

**Agricultural Education
2007-2008**

Agricultural Education
a Division of the
College of Agriculture

**Montana State University
Bozeman, Montana**

Agricultural Education Graduate Program

MSU Agricultural Education Mission Statement

Agricultural Education is dedicated to serving the needs of all students and agricultural professionals through a dynamic and comprehensive program of rural leadership, technology, science and proven educational practices. The program is grounded in basic and applied research aimed at improving professional and technical skills in the realm of Montana agriculture.

Purpose

The graduate program in agricultural education at Montana State University is designed to prepare graduates for entry into or advancement in formal and non-formal teaching careers. This program also provides development of professional leadership skills for other careers in agribusiness, government service, extension, or adult education

The master's degree program in agricultural education, with its various options, provides a program that can be tailored to meet each student's career goals. In addition to the wide variety of professional courses in agricultural education, offerings are also available from all academic departments in the College of Agriculture, including agricultural economics, animal and range sciences, land resources and environmental sciences, plant sciences and plant pathology, and veterinary molecular biology. Specialization areas such as adult education, educational administration, career education, and curriculum coordination are also available through cooperation with the College of Education, Health and Human Development.

Degree Offered

M.S. in Agricultural Education (Options in: Agricultural Instruction, Agricultural Extension, and Agricultural Communications)

Admission Criteria *(Contact Division of Graduate Education for more detailed information.)*

- 1 A bachelor's degree in an appropriate field such as agricultural education, agricultural communications, or an agriculturally related area from an accredited university;
- 2 An acceptable grade point average in undergraduate studies (a minimum GPA of 3.0);
- 3 Recommendations from three people knowledgeable of the applicant's professional qualifications.
- 4 A statement of purpose for pursuing the master's degree; and
- 5 Minimum scores of 1000 (combined verbal and quantitative) on the Graduate Record Examination.
- 6 Minimum TOEFL score of 213 is required for all international applicants.

If you do not meet these requirements, you may seek provisional admission. Provisional admission is granted when the department or Graduate Dean identifies an academic weakness. It

is not guaranteed to students with a low undergraduate GPA, and may only be used in defined instances. Students admitted provisionally may be suspended without a probationary period if the provisions placed on their admission have not been met. For more information about provisional admission, contact the Division of Graduate Education (<http://www.montana.edu/wwwdg/>; (406) 994-4145).

Application Procedures (*Contact Division of Graduate Education for more detailed information.*)

Students interested in the program should fill out the preliminary application and submit it as soon as possible. Below are the steps you will need to take to apply for graduate school at Montana State University.

- Take the GRE
- If applicable, take the TOEFL
- Fill out the preliminary application and return it to the Division of Agricultural Education.
- If pre-application is accepted, fill out full application.

The pre-application will be reviewed by the division graduate committee. If the pre-application is approved, a full application form will be sent to the prospective student.

Due Dates:

	Starting Semester	Pre-Application	Full Application
Fall	June 1 st	July 15 th	
Spring		October 15 th	December 1 st
Summer		February 15 th	April 1 st

Formal application to the graduate program in agricultural education must include:

- Completed application form
- \$50.00 non-refundable application fee
- Official GRE scores
- Official transcripts from all colleges attended
- GPA calculation sheet
- Three letters of reference

Additionally, international applicants must submit the following:

- Official TOEFL scores
- Financial certificate and financial documentation
- degree certificates
- TSE scores if applying for a teaching assistantship

The application will be reviewed by the divisional screening committee. Based on their review, the department head will make a recommendation to the Division of Graduate Education regarding admission. They will inform the applicant of the final decision.

Applicants who meet all criteria are recommended for unqualified admission. An applicant whose GRE score or GPA fall below the levels specified may be admitted provisionally if other indicators of potential success are provided. Students admitted with probationary status are not eligible for a departmental assistantship during this period.

Degree Requirements

The program offers considerable flexibility to students to help them meet their professional and personal objectives. **Plan A** requires a thesis and two courses: Research Methods (AGED 506), and Program Planning and Evaluation (AGED 507). A minimum of 30 credit hours must be completed; 20 credits of course work (majority of 500 level courses) and 10 thesis preparation credits.

The student who chooses **Plan B** will take the same two courses and is required to complete a professional paper based on an independent investigation related to his/her career goals. The student will take 30 credit hours of course work (no thesis credits). The final selection of the student's research activity will be the student's responsibility in collaboration with the advisor and the graduate committee.

Graduate Committee

The committee advises the student on academic matters, such as the program of study, and is the examining committee for the master's comprehensive and/or defense-of-thesis examinations.

A faculty committee of three to five members representing the student's major and supporting or minor fields will be recommended by the department head and approved by the Graduate Dean. A majority of the committee members must be from the major department (including Ag Ed and AOT professors) and consist of a majority of MSU faculties. All committee members should be familiar with the student's major area of interest. One member from the major area of study will be designated committee chairperson. The committee chairperson is usually the student's graduate advisor or major professor. Faculty affiliates, faculty of other institutions and nonacademic experts may serve as additional members, but not as chairs.

All students are required to meet with their graduate committee at least once each year to discuss progress made toward the completion of the degree. The student must take the initiative in setting up this meeting.

Program of Study

A minimum of 20 semester hours of course work and at least 10 thesis credit hours are required for this degree. Students deficient in preliminary course work may be required to take additional courses for which they will not receive graduate credit (courses numbered <400). A minimum of 21 credits of course work (including not more than 10 thesis credits) must be taken from Montana State University.

A student must register for a minimum of three credits during the semester of graduation.

The master's program in Agricultural Education offers three options to provide greater flexibility for students who want to supplement their education and enhance their careers. The required and suggested coursework for each option is outlined below. The options are:

\$ Agricultural Instruction \$ Agricultural
Extension \$ Agricultural Communications

Instruction Option	Extension Option	Communications Option
Required Research Credits (minimum of 10 credits)		
Thesis (AGED 590)	Thesis (AGED 590)	Thesis (AGED 590)
Required Coursework		
Research Methods (AGED 506)	Research Methods (AGED 506)	Research Methods (AGED 506)
Program Planning & Evaluation (AGED 507)	Program Planning & Evaluation (AGED 507)	Program Planning & Evaluation (AGED 507)
Suggested Supporting Coursework		
Educational Statistics I (EDCI 402)	Educational Statistics I (EDCI 402)	Educational Statistics I (EDCI 402)
Teaching & Learning in Adult Education (EDLD 504)	Foundations of Adult Education (EDLD 501)	Public Organization Theory (POLS 558)
Community Education (EDLD 503)	Community Education (EDLD 503)	Communications Theory (COMT 565, MSU-Billings)

AGED 500 SEMINAR

On Demand 1 cr. SEM 1 Maximum 4 cr.; PREREQUISITE: Graduate standing or seniors by petition. Course prerequisites as determined for each offering. -- Topics offered at the graduate level which are not covered in regular courses. Students participate in preparing and present discussion material.

AGED 506 RESEARCH METHODS

On Demand 3 cr. LEC 3; PREREQUISITE: Graduate standing, STAT 216, or concurrent enrollment in EDCI 402. -- Principles and techniques of research appropriate for planning, conducting and reporting agricultural or technology education research.

AGED 507 PROGRAM PLANNING & EVALUATION

S,Su 3 cr. LEC 3; PREREQUISITE: Graduate standing. -- A study of the literature on specific facets of program planning and evaluation applicable to

agricultural and technology education and extension education. Application of program planning and evaluation concepts through individual and class projects.

**AGED 510 THE SCIENCE OF FOOD, FIBER, NUTRITION, AND MORE:
AGRICULTURAL LITERACY IN MONTANA SCHOOLS**

Su 2 cr. LEC 2; PREREQUISITE: Montana Teacher Certification. --Integrating factual and scientific educational material from all areas of agriscience into the Montana elementary and middle school curriculum.

EDCI 402 EDUCATIONAL STATISTICS I

F,S,Su 3 cr. RCT 3 PREREQUISITE: STAT 216 -- The application of statistical processes to the analysis of educational data. Educational problems that require hypothesis testing, test construction statistics, regression, estimation and the T-distribution, analysis of frequencies, and ANOVA in their solution will be included.

EDLD 501 FOUNDATIONS OF ADULT EDUCATION

F alternate years, to be offered 2002, Su On Demand 3 cr. LEC 3 PREREQUISITE: Graduate standing. -- A survey of the field and profession of adult education as part of lifelong learning. Professionalism in adult education is approached through the study of: related adult education; historical and philosophical foundations; providers and programs; issues and trends.

EDLD 503 COMMUNITY EDUCATION

S alternate years, to be offered 2004; Su On Demand 2 cr. LEC 2 PREREQUISITE: EDLD 501. -- Emphasis on the historical and philosophical development, understanding the concept, goals and objectives, emerging models and institutions and agencies of community education.

EDLD 504 TEACHING AND LEARNING IN ADULT EDUCATION

F alternate years, to be offered 2003, Su On Demand 3 cr. LEC 3 PREREQUISITE: Graduate standing. -- A study of the adult learner, closely related learning theories, and teaching strategies appropriate for adult education strategies.

POLS 558 PUBLIC ORGANIZATION DYNAMICS

F alternate years, to be offered 2002 3 cr. LEC 3 PREREQUISITE: POLS 554, graduate standing. -- Examines alternative organization structures for public management and the influence of those structures upon organization behavior and performances. Influence of management styles and individual differences are examined as well as issues relating to personal development and organizational mission. Public and non-profit organizations are contrasted.

Communications Option

Coursework for the communications elective is scarce at MSU-Bozeman. Suitable courses may be found in the College of Business or the College of Letters and Science or at other universities. For example, communications-related coursework is offered on-line from MSU-Billings through their Communications and Theater Department (<http://www.msubonline.org/>).

COMT 510 ADVANCED INTERPERSONAL COMMUNICATION

S On-line, 3 cr. -- Considers major concepts relevant to the study of interpersonal communication, explores some of the most important and recent research in the area of interpersonal communication, and provides experiences for the practical application of these ideas. The content centers on such issues as self-disclosure, interpersonal conflict, perception of self and others, empathic listening, and the study of various specific types of interpersonal relationships such as interpersonal guidance and loving relationships. Graduate students will be required to present an extensive research paper/project.

COMT 514 ISSUES IN ORGANIZATIONAL COMMUNICATION

F On-line, 3 cr. -- Covers climate, leadership and conflict issues related to organization. Includes assessment center process, communication training, managing work team effectiveness, functional managerial metaphors, communication audits, communication ethics, planned change in organizations, cognitive mapping as a managerial skill, dealing with ambiguity, and managerial creativity. Graduate students will be required to present an extensive research paper/project.

COMT 522 PUBLIC RELATIONS

F On-line, 3 cr. -- Explores the fundamentals of public relations field and discusses the skills necessary for today's public relations practitioner. Provides the student with practical experience in the development of public relations materials, such as brochures and press releases, as well as the skills for the implementation of communication programs within the organization. Graduate students will be required to present an extensive research paper/project.

COMT 565 COMMUNICATION THEORY

F SU On-line, 3 cr. -- Provides the student with a theoretical/conceptual framework for understanding human communication. Graduate students will be required to present an extensive research paper/project.

Please see the current catalog for descriptions of currently offered courses on the web at <http://www.montana.edu/wwwcat/courses/courses2.html>. Work with your graduate committee to assure the courses you plan to take are appropriate for your degree.

Academic Standards

All graduate students must maintain a cumulative GPA of 3.0 to remain in good standing. Grade point averages are reviewed by the Division of Graduate Education, department head, and faculty advisor at the end of each semester. Should the semester GPA fall below a 3.0, the student is placed on probation for the following semester. During a semester of probation, the student cannot be admitted to degree candidacy and the assistantship stipend may be suspended. Also during this semester, the student must obtain a 3.0 or higher GPA. Failure to maintain a cumulative GPA of 3.0 for two semesters will result in loss of the assistantship. With the attainment of the required semester GPA and a cumulative GPA of 3.0 or higher the student returns to good standing. Each student must show reasonable progress in his/her degree program. Failure to demonstrate progress, as judged by the Graduate Advisory Committee, can result in dismissal of the student from the graduate program.

Thesis An individually written thesis based on original research is a requirement for all **Plan A** master's degree programs. The research problem selected should be one that relates to the general area of study of the major professor. The research project selected should be one that can be completed in a reasonable amount of time, will challenge the problem-solving ability of the graduate student, and make a significant contribution to the existing knowledge in the field.

Prior to the initiation of thesis research, a formal research proposal should be developed by the student. The proposal should include the research problem or question, purpose and objectives to be investigated, outline of proposed methods, a review of pertinent literature, and a statement of the relevance of the research. The research proposal will be presented during the second semester of graduate study to the Graduate Advisory Committee and other interested members of the departmental faculty.

The graduate committee must approve any significant modifications to proposed research. A significant change in the direction of the proposed research requires the submission of a revised master's research proposal to the committee for their approval. A copy of the student's approved research proposal must be on file in the divisional office.

An "Application for Advanced Degree" must be completed and signed prior to the deadline set by the Division of Graduate Education during the semester the student plans to defend his/her thesis (approximately 8-10 weeks before the deadline for turning in the final copies of the thesis). The student **MUST** be enrolled in three credits during the semester of his/her defense. See the Divisional Office for the appropriate form. There is a non-refundable fee associated with this application, and it is required every time the application is submitted. It is advised that the student not submit the application unless absolutely sure that he/she is in fact going to graduate.

The format and general requirements for thesis preparation must follow Graduate Studies guidelines found in "Guide for Preparation of Theses and Professional Papers" available from the MSU Bookstore. Typing and other costs involved in thesis preparation are the student's responsibility. The division will cover the costs for copies of the draft provided to the thesis advisory committee for the thesis defense.

Three members of the student's graduate committee will be designated to advise on the thesis. The graduate advisor is chairperson of the thesis committee. The thesis outline should be submitted to and approved by the thesis committee. A preliminary draft of the thesis, approved by the major advisor, will be presented to each advisory committee member no less than four weeks before the scheduled defense. Committee members should return this draft with review comments to the degree candidate within two weeks after it was received. The thesis will be revised and a final copy presented to each member of the advisory committee no less than one week before the thesis defense is scheduled.

Thesis Defense

Each student must successfully defend her/his thesis. It is the responsibility of the student to schedule the examination (allowing sufficient time before the deadline to make any changes that may be necessary prior to turning in the final thesis to the Division of Graduate Education), reserve a meeting room, and work with the Division of Agricultural Education Administrative Assistant to send out notifications two weeks prior to the examination with details of the location and time of the defense. The major professor will serve as the chairperson during the defense.

At least one day prior to the defense, the student must obtain a Master's Thesis Defense form from the Division of Agricultural Education Administrative Assistant. The form will be provided to the major professor at the beginning of the thesis defense presentation.

The basic format will include a seminar approximately 30 minutes in length, open to all members of the Division of Agricultural Education, the College of Agriculture and other interested persons. Following the presentation, questions will be permitted from the general audience. After a reasonable amount of time, the major professor will excuse the audience. The Graduate Advisory Committee and student will continue the thesis defense and comprehensive examination. In addition to questions relative to the thesis research, the comprehensive exam will include oral questions from the major and related areas. At the conclusion of the comprehensive exam, the student will be asked to leave the room to allow deliberation by the graduate committee. The committee votes to pass or fail the student. A majority vote is required to pass or fail. In the event of a deadlock, the department head, in consultation with the Graduate Advisory Committee, will make the final decision. Students have two chances to defend their thesis. In the event that a student fails twice, he/she will not be awarded an M.S. from the Division of Agricultural Education.

Time Limitations

Course work more than six years old at the time the degree is granted will not apply toward credit requirements for a master's degree.

Stipends and Fee Waivers

A limited number of graduate assistantships supported by state appropriated research and teaching funds are available to qualified Agricultural Education graduate students. Notification of the availability of departmental assistantships is sent out by the department head. Assistantships are awarded primarily based on the student's academic qualifications and the research topic.

Departmental research assistantships are normally awarded for a two-year period. Teaching assistantships, when available, are awarded by semester.

Graduate assistants are required to engage in 20 hours of research or teaching per week in support of ongoing programs in the department. Duties are assigned by the major professor or instructor. Graduate assistantships are not necessarily provided to students for the sole purpose of conducting thesis research.

Student Checklist

First Semester Meet with graduate advisor to discuss interests and future direction.
Select Graduate Committee.

Second Semester Meet with Graduate Committee. File Program of Study and Committee Form with the Divisional Office, who will forward to the Division of Graduate Education.

Third Semester Meet with Graduate Committee. Fourth Semester Meet with Graduate Committee.
Final Semester File Application for Advanced Degree form with the Divisional Office,

who will forward to the Division of Graduate Education.
Defend thesis.

Faculty Associate

Professor

Martin Frick; program planning and evaluation, curriculum, power mechanics, cooperative business education; (406) 994-5773; mfrick@montana.edu Earned his PhD from Iowa State University in 1990 and his BS & MS at the University of Missouri in Columbia in 1980 and 1982 respectively.

- Teaches Ag Education 105, 309, 314, 353, 480 and 507.
- Leads the international outreaches for experience with the limited resource farmers.

Assistant Professor

Blair Stringam; agricultural machinery, electronics and instrumentation for agriculture, surveying, precision agriculture, agriculture engineering, computer use in agriculture, water management; (406)994-5778; blairs@montana.edu. Earned his MS and PhD from Utah State University in 1992 and 1998 respectively and his BS from the University of Alberta in 1988. Technical Diploma in Agriculture Engineering from Olds College in 1984.

- Teaches Ag Education 105, 316, 333
- Teaches Agricultural Operations Technology 309, 401, 405, 417C, 419, and 425.

Assistant Professor

Carl Igo; formal and non-formal teaching methods, leader development, improvement of teaching, effective student evaluation, education in and about agriculture; (406) 994-3693; cigo@montana.edu. Earned PhD in Agricultural Education from Oklahoma State University in 1998; earned BS and MS in Agricultural Education with double emphasis in secondary teaching and agricultural

communications from Texas Tech University in 1983 and 1984, respectively.

- Teaches Agricultural Education 251, 253, 355, 400, 470, 482, and 506.

Careers

Professional career opportunities are available in teaching, communication, the Extension Service and in a variety of other public and private agencies. Teachers of Agricultural Education are more highly paid than other public school teachers on an annual basis because they are employed by public schools on extended (10 to 12 month) contracts.

Annually, there is a replacement need for about 15 percent of the work-force in agriculture teaching, for extension agents, and governmental service occupations. More than 80 percent of the graduates are placed in their first job choice and most graduates are employed in Montana. MSU AgEd and AOT graduates are also employed regionally and nationally.

National Professional Associations and Organizations

The following is a list of some of the professional associations and organizations connected with agricultural education. \$ National Association of Agricultural Educators (<http://www.naae.org/>) \$ American Association for Agricultural Education (<http://www.aaaeonline.org/>) \$ Association for International Agricultural and Extension Education

(<http://www.iaaee.org/>)

Other Links to Important Information

MSU Division of Graduate Education <http://www.montana.edu/wwwdg/>)

GRE (Graduate Record Examination) <http://www.gre.org/>

Contact Information

Mailing Address:	Agricultural Education 118 Cheever Hall, MSU P.O. Box 173740 Bozeman, MT 59717-3740
Phone Numbers:	406-994-5773 (Frick) 406-994-3693 (Igo) 406-994-5778 (Stringam) 406-994-2132 (Administrative Assistant)
E-mail Addresses:	mfrick@montana.edu (Frick) cigo@montana.edu (Igo) blairs@montana.edu (Stringam) kcooper@montana.edu (Cooper)

Summary of Procedures for the Master of Science Degree Refer to the University Catalog, the Division of Graduate Education web site, and the official thesis and dissertation handbook for additional information.

1. Complete Agricultural Education Divisional Pre-Application.
2. After pre-application approval, apply to the [Division of Graduate Education](#), pay \$50.00 application fee, and provide all required documents, (i.e. statement of purpose, letters of recommendation, and GRE scores, etc.)
3. After the application is reviewed by the graduate faculty, the student will receive notification of admission from the Division of Graduate Education.
4. Consult advisor regarding enrollment during the first semester of classes.
5. Select graduate committee, develop program of study, and present thesis proposal during the second semester of classes.
 - 5.1. All students must indicate on their program of study whether or not their research will involve human subjects. If human subjects are to be used, approval must be received from the Human Subjects Committee prior to the beginning of the research. (See <http://www2.montana.edu/irb/> to get more specific information.)
 - 5.2. Complete IRB training and ensure that committee chair has also completed training.
6. Conduct research during third semester of classes. IRB approval number must be on file before research is started.
7. Submit an "Application for Advanced Degree" to the Division of Graduate Education at the time of enrollment for the semester in which the degree is to be conferred (usually fourth semester of classes).
8. Complete research, prepare a draft copy of your thesis and submit it to your thesis committee at least one month prior to the thesis defense.
9. Schedule thesis defense with committee and divisional secretary at least one month prior to defense date.
10. Provide thesis committee final draft of thesis two weeks prior to defense date.
11. Upon successful completion of thesis defense, an electronic copy of the thesis, two original signature pages, and the Certificate of Approval Form must be submitted to the Division of Graduate Education. One copy of the thesis should be submitted to the divisional secretary on regular copy paper, complete with original signature page. Arrangements then need to be made with the divisional secretary for copies and binding of the thesis. One bound copy will be retained by the Agricultural Education Divisional library, one by the chair of the thesis committee, and each of the committee members.